

WEEK-1

1) Write the functions of components of a computer.

A) The main components of a computer are hardware, software and brainware. usually the main components of computers have been installed on the main board in a single unit & on board.

A computer is a combination of various integrated electric components. In order to operate properly, a Computer must be equipped with its components.

Main Components:

hardware: hardware in a Computer is a component that can be seen and touched. These components form a unit.

* Keyboard: The keyboard has letters & numbers. It is used to input text & other important commands.

* mouse: It controls the cursor and gives the input to the system. A mouse can be wire (or) wireless, has left & Right click buttons & usually a small scrolling wheel.

* CPU: The CPU will execute the commands of the system. It is a primary control center of the computer.

It facilitates communication and collaborations b/w different hardware & software computer components. The CPU contains circuits boards, memory, & RAM of a computer.

* Motherboard: The motherboard acts as the central electrical circuit by connecting different parts, distributing power as per energy requirement & delivery information. They require maintenance to check for corrosion & electrical connections.

Power Supply:

The power supply port provides electricity that activates the entire computer system. The life cycle of laptop batteries is finite.

Harddisk: These are the storage devices that save file, information & programs. They are usually magnetically coated discs that store all data digitally.

- Harddrives are susceptible to failure & Backing up your drives regularly is good practice!

RAM: Ram is the memory space that houses temporary data, processes information & commands. Deleting temporary files & turning off the computer regularly after usage help other efficient RAM utilisations.

Q) Software:- Software is a program that contains Commands that can be understood by the Computer.

The Software parts, namely:-

OS(operating System):- the foundational software that runs the entire Computer, its Programs & applications.

Language Processor:

The software that converts all user instructions into a language that the computer can understand.

Device Drivers:

device Specific Software that enables diff devices, like a printer or mouse to function.

Brainware:

Brainware is known as a Computer user or a person who Operates a Computer

(or) user.

Brainware has 3 levels:

- * System analyst.
- * Programmer
- * Operator.

Computer Network Components:

Computer Network Components comprise both physical parts as well as the software required for installing computer networks.

Hardware Components:

Servers: Servers are high configuration computers that manage the resources of the network. Servers can be various kinds: file server, database server, Print Server etc.,

Connecting devices:

Connecting devices acts as middleware b/w networks & computers, by bringing the network media together.

- (a) Routers
- (b) Bridges
- (c) Hubs
- (d) Repeaters
- (e) gateways
- (f) Switches

WEEK-2

Adapters :

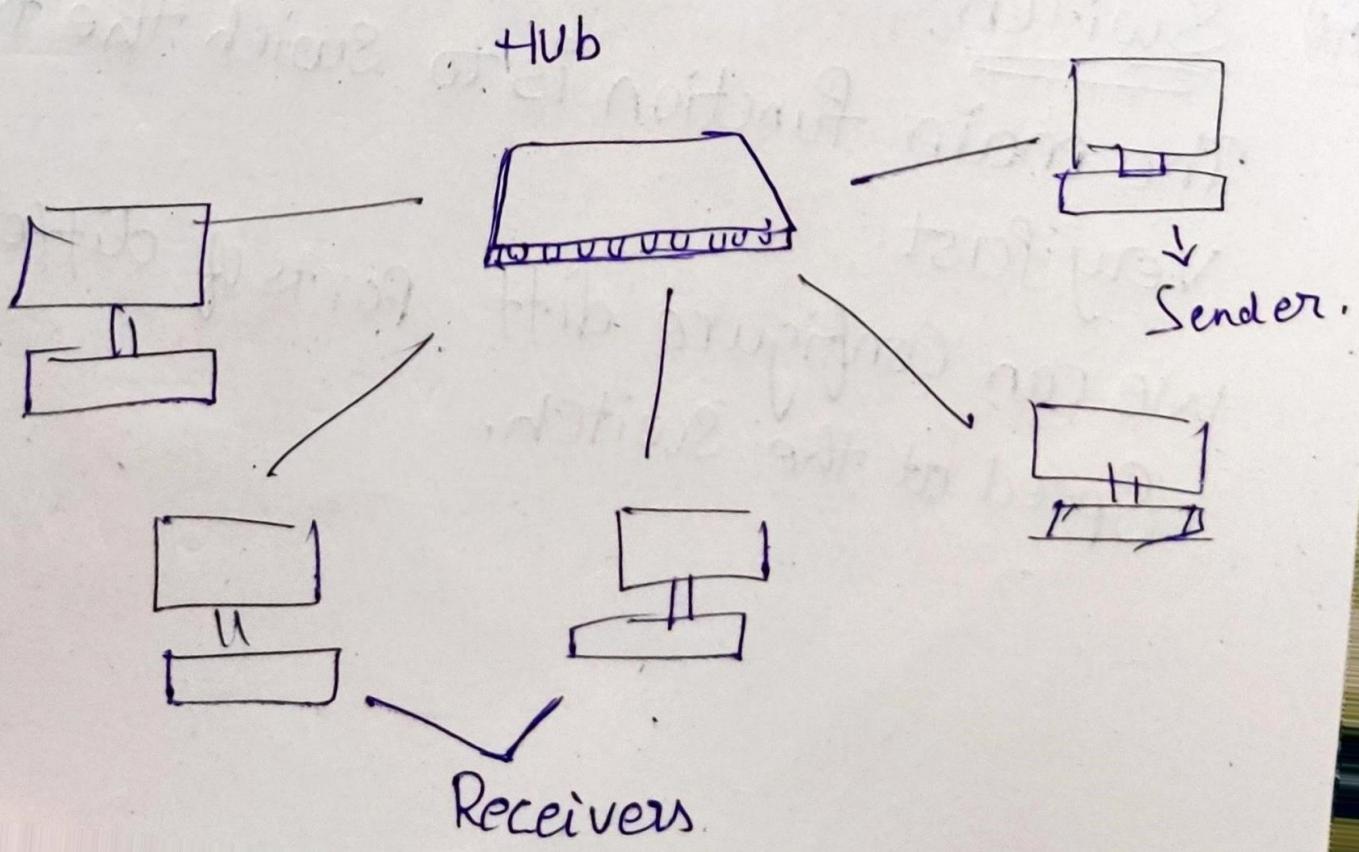
A device for connecting two parts of an apparatus.

Different type of adapters:

Host adapter, Adapter card, video adapter, Bus master adapter, fax adapter, Network adapter, Terminal adapter.

Hubs:

A hub is a physical layer Network device which is used to connect multiple devices in a network.



Gateway:

- It is completely dedicated to the specific task at once & contributes to complete the task very well.
- It can control the entire protocol of a network to other.

Advantages:

- It is able to accept, relay & transfer of packets only under the networks with some protocol.
- It works as a server for other servers.

Disadvantages:

Much expensive in cost.

Switch:

The main function is to switch the frame very fast.

We can configure diff ports of different speed at the switch.

Bridge:

Solve the problems of collision & bandwidth
Network traffic reduction.

→ It must be capable of handling Physical
addressing.

→ It reduces the unnecessary traffic problems
by controlling broadcasting.

① Repeaters:-

It amplifies the Signals without
impacting the speed of the network.

Advantages:

It is capable of amplifying the Signals
before the Signals become weak.